Michal Leskes

List of Publications by Year
in descending order

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63 papers	4,324 citations	136950 32 h-index	106344 65 g-index
69 all docs	69 docs citations	69 times ranked	6055 citing authors

#	Article	IF	Citations
1	Dynamic Nuclear Polarization in battery materials. Solid State Nuclear Magnetic Resonance, 2022, 117, 101763.	2.3	15
2	Monitoring electron spin fluctuations with paramagnetic relaxation enhancement. Journal of Magnetic Resonance, 2022, 336, 107143.	2.1	4
3	Dynamic Nuclear Polarization Solid-State NMR Spectroscopy for Materials Research. Annual Review of Materials Research, 2022, 52, 25-55.	9.3	20
4	Direct Detection of Lithium Exchange across the Solid Electrolyte Interphase by ⁷Li Chemical Exchange Saturation Transfer. Journal of the American Chemical Society, 2022, 144, 9836-9844.	13.7	9
5	In situ NMR reveals real-time nanocrystal growth evolution via monomer-attachment or particle-coalescence. Nature Communications, 2021, 12, 229.	12.8	17
6	Structure and Functionality of an Alkylated Li_{<i>x</i>}Si_{<i>y</i>}O_{<i>z</i>} Interphase for High-Energy Cathodes from DNP-ssNMR Spectroscopy. Journal of the American Chemical Society, 2021, 143, 4694-4704.	13.7	19
7	Oxygen Vacancy Distribution in Yttrium-Doped Ceria from ⁸⁹Yâ€“⁸⁹Y Correlations via Dynamic Nuclear Polarization Solid-State NMR. Journal of Physical Chemistry Letters, 2021, 12, 2964-2969.	4.6	17
8	Dynamic nuclear polarization in inorganic solids from paramagnetic metal ion dopants. , 2021, , .		3
9	Cation-Ligand Complexation Mediates the Temporal Evolution of Colloidal Fluoride Nanocrystals through Transient Aggregation. Nano Letters, 2021, 21, 9916-9921.	9.1	2
10	Alkylated LixSiyOz Coating for Stabilization of Li-rich Layered Oxide Cathodes. Energy Storage Materials, 2020, 33, 268-275.	18.0	35
11	Enabling Natural Abundance 17O Solid-State NMR by Direct Polarization from Paramagnetic Metal Ions. Journal of Physical Chemistry Letters, 2020, 11, 5439-5445.	4.6	28
12	Endogenous Dynamic Nuclear Polarization for Sensitivity Enhancement in Solid-State NMR of Electrode Materials. Journal of Physical Chemistry C, 2020, 124, 7082-7090.	3.1	30
13	Mitigating Structural Instability of High-Energy Lithium- and Manganese-Rich LiNi_{<i>x</i>}Mn_{<i>y</i>}Co_{<i>z</i>} Oxide by Interfacial Atomic Surface Reduction. Chemistry of Materials, 2019, 31, 3840-3847.	6.7	30
14	The effects of sample conductivity on the efficacy of dynamic nuclear polarization for sensitivity enhancement in solid state NMR spectroscopy. Solid State Nuclear Magnetic Resonance, 2019, 99, 7-14.	2.3	11
15	Atomic surface reduction of interfaces utilizing vapor phase approach: High energy LiNixMnyCoz oxide as a test case. Energy Storage Materials, 2019, 19, 261-269.	18.0	22
16	Endogenous Dynamic Nuclear Polarization for Natural Abundance ¹⁷O and Lithium NMR in the Bulk of Inorganic Solids. Journal of the American Chemical Society, 2019, 141, 451-462.	13.7	69
17	Role of annealing temperature on cation ordering in hydrothermally prepared zinc aluminate (ZnAl2O4) spinel. Materials Research Bulletin, 2018, 98, 219-224.	5.2	42
18	A Mechanistic Study of Phase Transformation in Perovskite Nanocrystals Driven by Ligand Passivation. Chemistry of Materials, 2018, 30, 84-93.	6.7	154

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19	Nuclear Magnetic Resonance Spectroscopy Techniques: Solid-State. , 2018, , 403-403.		0
20	Paramagnetic Metalâ€łon Dopants as Polarization Agents for Dynamic Nuclear Polarization NMR Spectroscopy in Inorganic Solids. ChemPhysChem, 2018, 19, 2139-2142.	2.1	32
21	Bifunctional Role of LiNO₃ in Liâ€“O₂ Batteries: Deconvoluting Surface and Catalytic Effects. ACS Applied Materials & Interfaces, 2018, 10, 29622-29629.	8.0	31
22	What Can We Learn from Solid State NMR on the Electrodeâ€“Electrolyte Interface?. Advanced Materials, 2018, 30, e1706496.	21.0	43
23	Investigation of Rechargeable Poly(ethylene oxide)-Based Solid Lithiumâ€“Oxygen Batteries. ACS Applied Energy Materials, 2018, 1, 3048-3056.	5.1	10
24	Identification of dopant site and its effect on electrochemical activity in Mn-doped lithium titanate. Physical Review Materials, 2018, 2, .	2.4	17
25	Surface-Sensitive NMR Detection of the Solid Electrolyte Interphase Layer on Reduced Graphene Oxide. Journal of Physical Chemistry Letters, 2017, 8, 1078-1085.	4.6	69
26	Significance of symmetry in the nuclear spin Hamiltonian for efficient heteronuclear dipolar decoupling in solid-state NMR: A Floquet description of supercycled <i>r</i>CW schemes. Journal of Chemical Physics, 2017, 146, 104202.	3.0	6
27	Highly Reversible Conversion-Type FeOF Composite Electrode with Extended Lithium Insertion by Atomic Layer Deposition LiPON Protection. Chemistry of Materials, 2017, 29, 8780-8791.	6.7	41
28	What Happens to LiMnPO₄ upon Chemical Delithiation?. Inorganic Chemistry, 2016, 55, 4335-4343.	4.0	17
29	Unraveling the Complex Delithiation Mechanisms of Olivine-Type Cathode Materials, LiFe_{<i>x</i>}Co_{1â€“<i>x</i>}PO₄. Chemistry of Materials, 2016, 28, 3676-3690.	6.7	38
30	Fluoroethylene Carbonate and Vinylene Carbonate Reduction: Understanding Lithium-Ion Battery Electrolyte Additives and Solid Electrolyte Interphase Formation. Chemistry of Materials, 2016, 28, 8149-8159.	6.7	339
31	Synthesis and extensive characterisation of phosphorus doped graphite. RSC Advances, 2016, 6, 62140-62145.	3.6	4
32	Solid Electrolyte Interphase Growth and Capacity Loss in Silicon Electrodes. Journal of the American Chemical Society, 2016, 138, 7918-7931.	13.7	189
33	Relative merits of rCW and XiX heteronuclear spin decoupling in solid-state magic-angle-spinning NMR spectroscopy: A bimodal Floquet analysis. Journal of Magnetic Resonance, 2016, 263, 55-64.	2.1	7
34	Voltage Dependent Solid Electrolyte Interphase Formation in Silicon Electrodes: Monitoring the Formation of Organic Decomposition Products. Chemistry of Materials, 2016, 28, 385-398.	6.7	149
35	Probing Dynamic Processes in Lithiumâ€łon Batteries by Inâ€…Situ NMR Spectroscopy: Application to Li_{1.08}Mn_{1.92}O₄ Electrodes. Angewandte Chemie - International Edition, 2015, 54, 14782-14786.	13.8	49
36	Multiple Redox Modes in the Reversible Lithiation of High-Capacity, Peierls-Distorted Vanadium Sulfide. Journal of the American Chemical Society, 2015, 137, 8499-8508.	13.7	127

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37	Selective formation of organo, organo-aqueous, and hydro gel-like materials from partially hydrolysed poly(vinyl acetate)s based on different boron-containing crosslinkers. Soft Matter, 2015, 11, 5060-5066.	2.7	13
38	Divergence from the classical hydroboration reactivity; boron containing materials through a hydroboration cascade of small cyclic dienes. Chemical Science, 2015, 6, 6262-6269.	7.4	8
39	Theory and Practice: Bulk Synthesis of C₃B and its H₂â€•and Liâ€Storage Capacity. Angewandte Chemie - International Edition, 2015, 54, 5919-5923.	13.8	33
40	Cycling Li-O ₂ batteries via LiOH formation and decomposition. Science, 2015, 350, 530-533.	12.6	584
41	Ion Dynamics in Li₂CO₃ Studied by Solid-State NMR and First-Principles Calculations. Journal of Physical Chemistry C, 2015, 119, 24255-24264.	3.1	31
42	Finite pulse effects in CPMG pulse trains on paramagnetic materials. Physical Chemistry Chemical Physics, 2015, 17, 22311-22320.	2.8	3
43	Identifying the Structure of the Intermediate, Li_{2/3}CoPO₄, Formed during Electrochemical Cycling of LiCoPO₄. Chemistry of Materials, 2014, 26, 6193-6205.	6.7	54
44	Ab Initio Structure Search and in Situ ⁷Li NMR Studies of Discharge Products in the Liâ€"S Battery System. Journal of the American Chemical Society, 2014, 136, 16368-16377.	13.7	132
45	A study of the optical properties of metal-doped polyoxotitanium cages and the relationship to metal-doped titania. Dalton Transactions, 2014, 43, 8679.	3.3	33
46	Relationships between Mn³⁺ Content, Structural Ordering, Phase Transformation, and Kinetic Properties in LiNi_{<i>x</i>}Mn_{2â€"<i>x</i>}O₄ Cathode Materials. Chemistry of Materials, 2014, 26, 5374-5382.	6.7	88
47	Comprehensive Study of the CuF₂ Conversion Reaction Mechanism in a Lithium Ion Battery. Journal of Physical Chemistry C, 2014, 118, 15169-15184.	3.1	168
48	Characterising local environments in high energy density Li-ion battery cathodes: a combined NMR and first principles study of LiFe_xCo_{1â^'x}PO₄. Journal of Materials Chemistry A, 2014, 2, 11948-11957.	10.3	50
49	Identifying the Critical Role of Li Substitution in P2â€"Na_{<i>x</i>}[Li_{<i>y</i>}Ni_{<i>z</i>}Mn_{1â€"<i>y</i>â€"<i>z</i>}]O<sub>2</sub (0 < <i>x</i>, <i>y</i>, <i>z</i> < 1) Intercalation Cathode Materials for High-Energy Na-Ion Batteries. Chemistry of Materials, 2014, 26, 1260-1269.	6.7	417
50	Paramagnetic electrodes and bulk magnetic susceptibility effects in the in situ NMR studies of batteries: Application to Li1.08Mn1.92O4 spinels. Journal of Magnetic Resonance, 2013, 234, 44-57.	2.1	59
51	<i>In Situ</i> Solid-State NMR Spectroscopy of Electrochemical Cells: Batteries, Supercapacitors, and Fuel Cells. Accounts of Chemical Research, 2013, 46, 1952-1963.	15.6	170
52	Monitoring the Electrochemical Processes in the Lithiumâ€"Air Battery by Solid State NMR Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 26929-26939.	3.1	92
53	Formation of Ti₂₈Ln Cages, the Highest Nuclearity Polyoxotitanates (Ln=La, Ce). Chemistry - A European Journal, 2012, 18, 11867-11870.	3.3	56
54	Direct Detection of Discharge Products in Lithiumâ€"Oxygen Batteries by Solidâ€State NMR Spectroscopy. Angewandte Chemie - International Edition, 2012, 51, 8560-8563.	13.8	75

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55	Radio frequency assisted homonuclear recoupling â€“ A Floquet description of homonuclear recoupling via surrounding heteronuclei in fully protonated to fully deuterated systems. Journal of Magnetic Resonance, 2011, 209, 207-219.	2.1	19
56	Floquet theory in solid-state nuclear magnetic resonance. Progress in Nuclear Magnetic Resonance Spectroscopy, 2010, 57, 345-380.	7.5	136
57	Design of a triple quantum coherence excitation scheme for protons in solid state NMR. Journal of Chemical Physics, 2009, 130, 124506.	3.0	8
58	Why does PMLG proton decoupling work at 65kHz MAS?. Journal of Magnetic Resonance, 2009, 199, 208-213.	2.1	34
59	Homonuclear dipolar decoupling at magic-angle spinning frequencies up to 65kHz in solid-state nuclear magnetic resonance. Chemical Physics Letters, 2008, 466, 95-99.	2.6	63
60	Supercycled homonuclear dipolar decoupling in solid-state NMR: Toward cleaner H1 spectrum and higher spinning rates. Journal of Chemical Physics, 2008, 128, 052309.	3.0	59
61	Bimodal Floquet description of heteronuclear dipolar decoupling in solid-state nuclear magnetic resonance. Journal of Chemical Physics, 2007, 127, 024501.	3.0	49
62	A broad-banded z-rotation windowed phase-modulated Leeâ€“Goldburg pulse sequence for 1H spectroscopy in solid-state NMR. Chemical Physics Letters, 2007, 447, 370-374.	2.6	92
63	Proton line narrowing in solid-state nuclear magnetic resonance: New insights from windowed phase-modulated Lee-Goldburg sequence. Journal of Chemical Physics, 2006, 125, 124506.	3.0	57